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10/594,603	02/12/2007	Hiroyuki Yaegashi	1982-0313PUS1	4858

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EXAMINER	
MACCHIAROLO, PETER J	

ART UNIT	PAPER NUMBER
2879	

NOTIFICATION DATE	DELIVERY MODE
06/29/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/594,603	YAEGASHI, HIROYUKI	
	Examiner	Art Unit	
	PETER J. MACCHIAROLO	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/31/2008 09/28/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to amendment

Receipt is acknowledged of the preliminary amendments filed 09/28/2006 and 11/13/2007.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 11/13/2007 and 09/28/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 13 is objected to because of the following informalities:

Claim 13 recites "the insulating layer." There is not proper antecedent basis for this term. For the purpose of examination, the examiner reads the proper dependency should be from claim 7, from which there is proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "a high-melting point metal" in claim 5 is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of examination, the examiner interprets that the film comprises metal. Claim 6 is likewise rejected due to its dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 12, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Murakami et al. (USPGPUB 20040256979: "Murakami").

Regarding claim 1, Murakami discloses at least in figure 1 an organic electroluminescence device, comprising: an anode electrode (106) comprising a first conductive film (106a) which is formed on a substrate (111) and has light reflectivity (see paragraph 51), and a second conductive film (106c) which is formed on the first conductive film (106a) so as to cover the first conductive film and has light transmittance (see at least paragraph 49); an organic electroluminescence layer (112) which is formed on the anode electrode (106); and a cathode electrode (113) which is formed on the organic electroluminescence layer and has light transmittance (see at least paragraph 52).

Regarding claim 2, Murakami discloses at least in figure 1 an organic electroluminescence device, comprising: an anode electrode (106) comprising a first conductive film (106a) which is formed on a substrate (111) and has light reflectivity (see at least paragraph 51), a second conductive film (106c) which is formed on the first conductive film and has light transmittance (see at least paragraph 49), and a third conductive film (106b) which is partially formed between the first conductive film (106a) and the second conductive film (106c) and is electrically connected to each of the first conductive film (106a) and the second conductive film (106c); an organic electroluminescence layer (112) which is formed on the anode electrode (106); and a cathode electrode (113) which is formed on the organic electroluminescence layer (112) and has light transmittance (see at least paragraph 52).

Regarding claim 3, Murakami discloses at least in figure 1 an organic electroluminescence device wherein the third conductive film (106b) is formed on a peripheral edge portion of the first conductive film (106a).

Regarding claim 4, Murakami discloses at least in figure 1 the second conductive film (106c) is formed so as to cover the first conductive film (106a).

Regarding claim 5, Murakami discloses at least in figure 1 the third conductive film (106b) comprises a high-melting point metal.

Regarding claim 6, Murakami discloses at least paragraph 114 that the third conductive film can comprise an alloy comprising aluminum and Ta.

Regarding claim 12, Murakami discloses at least in figure 1 the first conductive film (106a) is partially formed in a luminescence region (114) where the anode electrode (106) and the cathode electrode (113) overlap each other.

Regarding claim 14, Murakami discloses at least in figure 1 the first conductive film (106a) comprises Al, Ag, Nd, Si, Ti, W, Cu, Nb, Ta, C, or an alloy comprising at least any one of these as a main component.

Regarding claim 15, Murakami discloses at least in figure 1 the second conductive film (106c) comprises ITO, IZO, or ZnO.

Regarding claim 16, Murakami discloses at least in figure 1 a display apparatus, comprising the organic electroluminescence device of claim 1 in the pixel region.

Regarding claim 17, Murakami discloses at least in figure 1 a switching device (TFT) which is formed on the substrate (111) and controls a driving voltage which is applied to the organic electroluminescence device.

Claims 7-9, 11, and 13 are rejected under 35 U.S.C. 102(a) and 102(e) as being anticipated by Murakami et al. (USPGPUB 20040113544: "Murakami'544").

Regarding claim 7, Murakami'544 discloses at least in figure 2 an organic electroluminescence device, comprising: a first conductive film (110, see also paragraph 80) which is formed on a substrate (116) and has light reflectivity; an insulating layer (119) which is formed on the first conductive film (110) and has light transmittance; an anode electrode (115) which is formed on the insulating layer (119) and comprises a second conductive film having light transmittance (see paragraph 80); an organic electroluminescence layer (122) which is formed on the anode electrode (115); and a cathode electrode (125) which is formed on the organic electroluminescence layer and has light transmittance (see at least paragraph 81).

Regarding claim 8, Murakami'544 discloses at least in figure 2 the insulating layer (119) is formed so as to cover the first conductive film (110).

Regarding claim 9, Murakami'544 discloses at least in figure 2 the first conductive film (110) is formed so as to be wider than a luminescence region where the anode electrode (115) and the cathode electrode (125) overlap each other (135).

Regarding claim 11, Murakami'544 discloses at least in paragraph 58 that the insulating layer (199) has light transmittance of 50% or higher (inherent to 500nm thick SiN).

Regarding claim 13, Murakami'544 discloses at least in figure 2 irregularities (uneven surface above 105) are formed on a surface of the insulating layer (119).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami'544.

Regarding claim 10, Murakami'544 discloses in paragraph 58 that the insulating layer (119) has a film thickness of 0.5μm which prevents short circuits.

Although Murakami'544 is silent to the insulating layer having a film thickness of 1μm or more, this is considered a matter of obvious design choice, since the thickness is determined based on specific platform requirements, such as intended power usage and overall thickness.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Murakami'544 with the insulating layer having a film thickness of 0.5μm to meet certain platform demands.

Regarding claims 23, the structural limitations therein are the same as those recited in claims 7-11, as rejected by Murakami'544 above, in addition to a switching device (105) and a second insulating layer (120) comprising a photosensitive resin (PC452, JSR Corporation, see at least paragraph 58).

Murakami'544 is silent to a method of fabricating the organic EL display device.

However, one skilled in the art will recognize that manufacturing Murakami544's device will comprise Applicant's recited steps of forming. Furthermore, the Examiner hereby takes Official notice that the recited etching and photoresist exposure is well-known in the art. Since only generic method steps and well-known methods are recited, the structure taught by Murakami'544 meets Applicant's method step limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the OLED of Murakami with the method of claims 7-11, since the method steps are obvious in light of the resultant structure.

Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami.

Regarding claims 18-22, the structural limitations therein are the same as those recited in claims 1-6, as rejected by Murakami above.

Murakami is silent to a method of fabricating the organic EL display device.

However, one skilled in the art will recognize that manufacturing Murakami's device will comprise Applicant's recited steps of forming. Furthermore, the Examiner hereby takes Official notice that the recited etching and photoresist exposure is well-known in the art. Since only generic method steps and well-known methods are recited, the structure taught by Murakami meets Applicant's method step limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the OLED of Murakami with the method of claims 18-22, since the method steps are obvious in light of the resultant structure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

/Peter Macchiarolo/
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